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TITLE: Ball grid array-typed substrate assembly and
semiconductor package

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PATENT-FAMILY:

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ABSTRACTED-PUB-NO: KR2001038773A

BASIC-ABSTRACT: NOVELTY - Ball grid array-typed substrate
assembly and a
semiconductor package are to easily radiate the heat
produced from a
semiconductor chip by forming sink on the package.

DETAILED DESCRIPTION - A number of openings(21a) are formed
on a substrate. A
wire pad(22) is provided at a desired spacing on an edge of
the opening, and
one end of a wire(23) is bonded on the wire pad. At least
one dam ring(24) is
provided on the substrate(21), with the dam ring forming a
band along the edge
of the opening. A number of solder balls are attached to
an outer surface of

the dam ring. The substrate is attached with a semiconductor chip(27) on a bottom thereof, and the other end of the wire is connected to the semiconductor chip through the opening. The semiconductor chip is attached with a heat sink(29) by an adhesive. The heat sink is made of a metal material to efficiently radiate the heat produced from the semiconductor chip. The dam ring is provided on an inner surface with a sealant(25) to protect a bonded portion of an exposed upper surface of the semiconductor chip from the exterior.

CHOSEN-DRAWING: Dwg.1/10

TITLE-TERMS:

BALL GRID ARRAY TYPING SUBSTRATE ASSEMBLE SEMICONDUCTOR PACKAGE

DERWENT-CLASS: U11

EPI-CODES: U11-E02A1;

